



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/342,971	06/29/1999	TONY F. RODRIGUEZ	4830-53055/W	7370

23735 7590 04/08/2004  
DIGIMARC CORPORATION  
19801 SW 72ND AVENUE  
SUITE 250  
TUALATIN, OR 97062

EXAMINER

LASTRA, DANIEL

ART UNIT PAPER NUMBER

3622

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/342,971

Applicant(s)

RODRIGUEZ ET AL.

Examiner

DANIEL LASTRA

Art Unit

3622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-4 and 6-28 have been examined. The Application 09/342,971 claims priority to provisional application 60/082,228 (04/16/1998).

***Response to Amendment***

2. Applicant amended claims 8, 10, 15, 17, 21, 23 and added new claims 24-28. Applicant's arguments with respect to the rejection(s) of claim(s) 1 and 3 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Dietz (U.S. 5,949,042) and Moskowitz et al (U.S. 5,822,432).

***Claim Rejections - 35 USC § 112***

3. Claims 24-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6-10, 18-24 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox et al (U.S. 5,930,369) in view of Rathus et al (U.S. 5,932,863) and further in view of Moskowitz et al (U.S. 5,822,432).

As per claim 1, Cox et al teach:

A promotional method comprising:

steganographically encoding an article of printed promotional material to hide plural-bit data therein, the steganographic encoding substantially spanning the article rather than being localized in one excerpt thereof, and spanning a portion of the article having a substantially non-uniform appearance (see column 1, lines 31-50; column 6, lines 26-44);

Cox fails to teach

acquiring visible light scan data from the printed promotional material and processing same to extract the plural-bit data therefrom using at least a part of the extracted plural-bit data to direct an Internet web browser to a web site that provides

Art Unit: 3622

consumer information related to a product or service promoted by the printed promotional material. However, Rathus teaches a system that allows users to access electronic media via a printed matter or to access electronic media relating to, or expanding upon, material presented in the printed matter using a CCD camera as the decoder device (see column 2, lines 51-67 – column 3, lines 1-30; column 6, lines 50-52). Also, Moskowitz teaches that “a watermarks might contain one or more URLs describing online sites where similar content that the buyer of a piece of content might be interested in can be found (see column 9, lines 29-40). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Cox would embed data related to a product or service promoted by the printed promotional material and would extract using the encoded data using the CCD camera as taught by Rathus. The encoded data in the printed material would contain Internet addresses of online sites, as taught by Moskowitz that would direct an Internet web browser to a web site that would provide consumer information related to a product or service promoted by the printed promotional material. This feature would make it easier to direct users to the printed advertisement web site so they can obtain more information about products and promotions.

As per claim 4, Cox teaches:

A method of travel promotion, comprising:

steganographically encoding a travel photograph to hide plural-bit data therein, the steganographic encoding having a strength that varies across the photograph in accordance with local characteristics thereof, so as to aid concealment of the encoding

Art Unit: 3622

(see column 1, lines 31-50; column 9, lines 5-19). Cox teaches in column 1, lines 30-39 that a "digital watermark is intended to complement cryptographic processes. The watermark is a visible or preferably an invisible identification code that is permanently embedded in the data...As used herein the terms data and material will be understood to refer to audio (speech and music), images (photographs and graphics), video (movies or sequences of images)". Therefore, it would be obvious to a person of ordinary skill in the art at the time the application was made, to know that Cox teaches about encoding photographs. The descriptive material indicating the type of photograph will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F. 3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that merely labeling the data, in this case the photograph, differently from that in the prior art would have been obvious. See *Gulack* cited above.

Cox fails to teach:

acquiring visible light scan data from the travel photograph and processing same to extract the plural-bit data therefrom and using at least part of the extracted plural-bit data to direct an Internet web browser to a web site that provides travel information useful to a consumer who wishes to visit the location depicted in the photograph. However, Rathus teaches a system that allows users to access electronic media via a printed matter or to access electronic media relating to, or expanding upon, material presented in the printed matter using a CCD camera as the decoder device (see column

Art Unit: 3622

2, lines 51-67 – column 3, lines 1-30; column 6, lines 50-52). Also, Moskowitz teaches that “a watermarks might contain one or more URLs describing online sites where similar content that the buyer of a piece of content might be interested in can be found (see column 9, lines 29-40). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Cox would embed data related to a product or service promoted by the printed promotional material and would extract the encoded data using the CCD camera, as taught by Rathus. The encoded data in the printed material would contain Internet addresses of online sites, as taught by Moskowitz that would direct an Internet web browser to a web site that would provide consumer information related to a product or service promoted by the printed promotional material. This feature would make it easier to direct users to the printed advertisement web site so they can obtain more information about products and promotions, and particularly a travel photograph in which interested persons can obtain more information about fares and costs.

Claim 6 contains the same limitations as claim 1 therefore the same rejection is applied.

As per claim 7, Cox teaches:

The method of claim 1 wherein the steganographic encoding has a strength that varies across the article in accordance with local characteristics thereof, so as to aid concealment of the encoding (see column 6, lines 27-44).

As per claim 8, Cox teaches:

The method of claim 1 wherein the processing includes *automatically* discerning an apparent rotation of the scan data from an original orientation of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61).

As per claim 9, Cox teaches:

The method of claim 8 wherein the processing includes discerning an apparent scaling of the scan data from an original scale of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61).

As per claim 10, Cox teaches:

The method of claim 1, wherein the processing includes *automatically* discerning an apparent scaling of the scan data from an original scale of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61).

As per claim 18, Cox teaches:

The method of claim 4 wherein the steganographic encoding substantially spans the photograph rather than being localized in one excerpt thereof (see column 1, lines 31-50; column 6, lines 26-44).

As per claim 19, Cox teaches:

The method of claim 18 wherein the photograph corresponds to a set of pixels, and the steganographic encoding spans a portion of pixels having substantially non-uniform values (see column 6, lines 27-44; column 1, lines 31-50).

As per claim 20, Cox teaches:



The method of claim 4 wherein the photograph corresponds to a set of pixels, and the steganographic encoding spans a portion of pixels having substantially non-uniform values (see column 6, lines 27-44; column 1, lines 31-50).

As per claim 21, Cox teaches:

The method of claim 4, wherein the processing includes *automatically* discerning an apparent rotation of the scan data from an original orientation of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61).

As per claim 22, Cox teaches:

The method of claim 21 wherein the processing includes discerning an apparent scaling of the scan data from an original scale of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61).

As per claim 23, Cox teaches:

The method of claim 4, wherein the decoding includes *automatically* discerning an apparent scaling of the scan data from an original scale of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61).

As per claim 24, Cox fails to teach:

The method of claim 1 in which said processing of scan data proceeds without reference to an unencoded version of said promotional material. However, Rathus teaches a system that allows users to access electronic media via a printed matter or to access electronic media relating to, or expanding upon, material presented in the printed matter using a CCD camera as the decoder device (see column 2, lines 51-67 – column 3, lines 1-30; column 6, lines 50-52). Therefore, it would have been obvious to a

Art Unit: 3622

person of ordinary skill in the art at the time the application was made, to know that Cox would embed data related to a product or service promoted by the printed promotional material and would extract the encoded data using the CCD camera, as taught by Rathus, without the need to reference an unencoded version of said material.

As per claim 27, the method of claim 4 in which said processing of scan data proceeds without reference to an unencoded version of said travel photograph. Claim 27 contains the same limitations as claim 24 therefore the same rejection is applied.

As per claim 28, the method of claim 6 in which said processing of scan data proceeds without reference to an unencoded version of said promotional material. Claim 28 contains the same limitations as claim 24 therefore the same rejection is applied.

Claims 3, 12-17 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox et al (U.S. 5,930,369) in view of Rathus et al (U.S. 5,932,863) and further in view of Dietz, II et al (U.S. 5,949,042).

As per claim 3, Cox et al teach:

A promotional method comprising:

presenting a steganographically-encoded object within the field of view of a visible light optical sensor device, the object being selected from the list consisting of a retail product, or packaging for a retail product, the steganographic encoding having a strength that varies across the object in accordance with local characteristics thereof, so as to aid concealment of the encoding (see column 1, lines 31-50; column 6, lines 26-44; column 9, lines 5-19). Cox fails to teach acquiring optical data corresponding to the object, decoding plural-bit digital data from the optical data; submitting at least some of

Art Unit: 3622

said decoded data to a remote computer and determining at the remote computer whether a prize should be awarded in response to submission of said decoded data. However, Rathus teaches a system that allows users to access electronic media via a printed matter or to access electronic media relating to, or expanding upon, material presented in the printed matter using a CCD camera as the decoder device (see column 2, lines 51-67 – column 3, lines 1-30; column 6, lines 50-52). Also Dietz teaches a system where a host computer reads a validation code from a printed material and determines if the users have a winning play (see column 2, lines 23-57). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Cox would embed data related to a product or service promoted by the printed promotional material and would extract the encoded data using the CCD camera, as taught by Rathus. The decoded data in the printed material would be transmitted to a remote computer to determine if the data contains a winning prize or not, as taught by Dietz. This feature would make it easier to direct users to the printed advertisement web site so they can obtain more information about products, promotions and have the opportunity to win prizes. Cox does not expressly teach that the data would be steganographically encoded in a retail product. However, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that if the Cox system steganographically encodes data in printed matter such as photographs (see column 1, lines 31-50), it would also steganographically encode data in a retail product.

As per claim 12, Cox teaches:

The method of claim 3 wherein the steganographic encoding substantially spans the object rather than being localized in one excerpt thereof (see column 6, lines 26-44).

As per claim 13, Cox teaches:

The method of claim 12 wherein the steganographic encoding spans a portion of the object having a substantially non-uniform appearance (see column 6, lines 26-44).

As per claim 14, Cox teaches:

The method of claim 3 wherein the steganographic encoding spans a portion of the object having a substantially non-uniform appearance (see column 6, lines 26-44).

As per claim 15, Cox teaches:

The method of claim 3 wherein the decoding includes *automatically* discerning an apparent rotation of the optical data from an original orientation of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61)

As per claim 16, Cox teaches:

The method of claim 15, wherein the decoding includes discerning the apparent scaling of the optical data from an original scale of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61).

As per claim 17, Cox teaches:

The method of claim 3, wherein the decoding includes *automatically* discerning the apparent scaling of the optical data from an original scale of the encoding, and compensating therefor (see column 2, lines 1-9; column 12, lines 53-61).

As per claim 26, the method of claim 3 in which said decoding proceeds without reference to an encoded version of said product. Claim 26 contains the same limitations as claim 24 therefore the same rejection is applied.

Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox et al (U.S. 5,930,369) in view of Merriman et al (U.S. 5,948,061).

As per claim 2, Cox teaches:

A method of determining consumer response to print advertising, comprising:

steganographically encoding a first print advertisement with first plural-bit data;  
steganographically encoding a second print advertisement with second plural-bit  
decoding the first and second data when consumers present the first and second  
advertisements to a visible light optical sensor (see column 1, lines 31-51; column 9,  
lines 5-19; column 13, lines 19-67); and

Cox fails to teach, tallying the number of decoded first and second data, respectively, to determine consumer response to the advertisements. However, Merriman et al teach a system that tracks down how often a given advertisement has been displayed, how often a given user has seen a given advertisement, and other information regarding the user and the frequency of the display of the advertisement (see column 2, lines 5-45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Cox would embed, in a state of "invisibility" data related to a product or service promoted by the printed promotional material, and would use the Merriman system to track down how often a given user has seen a given advertisement and other information regarding the

Art Unit: 3622

user and the frequency of the display of the advertisement. This feature would help better target advertisements to customers.

As per claim 11, Cox does not expressly teach the method of claim 2, wherein the first and second advertisements are substantially identical, except for different plural-bit data encoded therein. However, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that in Cox two similar or identical advertisements or images would have different encoded data because the advertisements or images and the encoded data are independent from each other (see figure 7). The embedded or encoded data is invisible to the naked eye, therefore images that may appear identical could have different encoded data.

As per claim 25, the method of claim 2 in which said decoding proceeds without reference to unencoded versions of said first and second advertisements. Claim 25 contains the same limitation as claim 24 therefore the same rejection is applied.

### ***Response to Arguments***

6. Applicant's arguments with respect to the rejection(s) of claim(s) 1 and 3 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Dietz (U.S. 5,949,042) and Moskowitz et al (U.S. 5,822,432).

The Applicant argues that Cox does not teach anything about encoding a travel photograph. The Examiner answers that Cox teaches in column 1, lines 30-39 that a "digital watermark is intended to complement cryptographic processes. The watermark is a visible or preferably an invisible identification code that is permanently embedded in

Art Unit: 3622

the data...As used herein the terms data and material will be understood to refer to audio (speech and music), images (photographs and graphics), video (movies or sequences of images)". Therefore, it would be obvious to a person of ordinary skill in the art at the time the application was made, to know that Cox teaches about encoding a photograph. The descriptive material indicating the type of photograph will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that merely labeling the data, in this case the photograph, differently from that in the prior art would have been obvious. See *Gulack* cited above.

The Applicant amended claim 8 to overcome the prior art. The Examiner answers that it was known at the time of the application that merely providing an automatic means to replace a manual activity which accomplishes the same result is not sufficient to distinguish over the prior art, *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958). There is no enhancement found in the claimed step other than the known advantage of increased speed. The end result is the same as compared to the manual method. It would have been obvious to a person of ordinary skill in the art at the time the application was made, to automate the step of automatically discerning an apparent scaling of the scan data because this would speed up the determining step which is purely known and expected result from automation of what is known in the art. Also Cox

Art Unit: 3622

column 12, lines 53-61 teaches an scanning method that automatically adjust and refocus to geometric distortions.

**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL LASTRA whose telephone number is 703-306-5933. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ERIC W STAMBER can be reached on 703-305-8469. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

DL

Daniel Lastra

October 4, 2003



ERIC W. STAMBER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3800